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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,474	02/09/2004	Kazutaka Katayama	MM4648	1355
1109	7590	07/03/2006	EXAMINER	
ANDERSON, KILL & OLICK, P.C. 1251 AVENUE OF THE AMERICAS NEW YORK,, NY 10020-1182			BOCHNA, DAVID	
			ART UNIT	PAPER NUMBER
			3679	

DATE MAILED: 07/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/775,474	<b>Applicant(s)</b> KATAYAMA ET AL.	
	<b>Examiner</b> David E. Bochna	<b>Art Unit</b> 3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 April 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-9 and 11-18 is/are pending in the application.
- 4a) Of the above claim(s) 13-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-9,11 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

1. Claim 4 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 4 contains the same limitations incorporated into claim 1.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 8-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Wiita et al.

In regard to claim 8, Wiita et al. discloses an integrated assembly comprising: a fluid tube connector having a tube connecting portion 102 of cylindrical geometry with a longitudinal end and an annular stopper 96 on the cylindrical outer circumference thereof; a thermoplastic resin tube 116, having an open end through which the tube connecting portion of said fluid tube connector is press fitted to form a tight coupling; and

an annular rubber band 130 having two ends with an annular rubber band fitted to the outer circumference of the open end of said resin tube so that one end 138 of the annular band is located adjacent the open end of the resin tube and the opposite end 136 of the rubber band extends a predetermined distance beyond the longitudinal end of the quick connector and with said annular rubber band having a minimum length equal to about at least the diameter of said

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cylindrical outer circumference and a diameter such that a tightening force is applied to said resin tube adjacent at the open end into which said tube connecting portion has been press fitting to prevent disengagement therefrom.

In regard to claim 9, wherein said annular rubber band 136 has one end 138 thereof displaced from the connecting end 120 of the resin tube into which the tube connecting portion is press fitted to form an exposed free end of resin tube.

4. Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Laidig.

In regard to claim 8, Laidig discloses an integrated assembly comprising: a fluid tube connector having a tube connecting portion 32 of cylindrical geometry with a longitudinal end and an annular stopper 32 on the cylindrical outer circumference thereof; a thermoplastic resin tube 18, having an open end through which the tube connecting portion of said fluid tube connector is press fitted to form a tight coupling; and

an annular rubber band 26 having two ends with an annular rubber band fitted to the outer circumference of the open end of said resin tube so that one end of the annular band is located adjacent the open end of the resin tube and the opposite end 42 of the rubber band extends a predetermined distance beyond the longitudinal end of the quick connector 32 and with said annular rubber band having a minimum length equal to about at least the diameter of said cylindrical outer circumference and a diameter such that a tightening force is applied to said resin tube adjacent at the open end into which said tube connecting portion has been press fitting to prevent disengagement therefrom.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

•  
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 4-5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laidig in view of Silvey.

In regard to claims 1, 4-5 and 11, Laidig discloses a connecting structure for affixing an open end of a tube 18 composed from thermoplastic resin materials to a tube connecting portion 32 of a quick connector having a cylindrical geometry, a longitudinal end and at least one annular stopper 32 on the cylindrical outer circumference thereof with said tube connecting portion 32 being adapted to be press fitted into said open end of said resin tube; said connecting structure comprising:

an annular band 26 composed of elastomeric rubber having one end surrounding the open end of said resin tube and having another end 42 extending a predetermined distance beyond said longitudinal end of said quick connector 32 after it is press fitted into said resin tube such that the annular band has a minimum length equal to about at least the diameter of said cylindrical outer circumference of said tube connection portion and is of a diameter such that a tightening force is applied to said resin tube after press fitting said tube connecting portion into the open end of said resin tube to prevent disengagement therefrom. Laidig discloses that the band 26 is placed over the hose 18 in order to provide a tight fit and additional support to the connection (see col. 2, lines 18-20), but Laidig does not disclose that the band is made from multiple layers of with said

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annular rubber band being formed of a plurality of elastomeric rubber layers. Silvey teaches making a reinforcing hose 40 out of a plurality of layers of material (two rubber layers 47 and 49 and one fabric 48) in order to increase the strength of the reinforcing material. Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the reinforcing band 26 of Laidig, as taught by Silvey, in order to improve upon the strength and supporting function of the reinforcing material.

7. Claims 1-2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiita et al. in view of Silvey.

In regard to claims 1 and 4, Wiita et al. discloses (fig. 3) a connecting structure for affixing an open end of a tube 116 composed from thermoplastic resin materials to a tube connecting portion 102 of a quick connector having a cylindrical geometry, a longitudinal end and at least one annular stopper 96 on the cylindrical outer circumference thereof with said tube connecting portion being adapted to be press fitted into said open end of said resin tube; said connecting structure comprising:

an annular band 130 composed of elastomeric rubber having one end surrounding the open end of said resin tube and having another end 136 extending a predetermined distance beyond said longitudinal end of said quick connector after it is press fitted into said resin tube such that the annular band has a minimum length equal to about at least the diameter of said cylindrical outer circumference of said tube connection portion and is of a diameter such that a tightening force is applied to said resin tube after press fitting said tube connecting portion into the open end of said resin tube to prevent disengagement therefrom.

Wiita et al. discloses using the band 130 to strengthen the connection between the hose and tube connection, but does not disclose using a plurality of elastomeric layer. Silvey teaches making a reinforcing hose 40 out of a plurality of layers of material (two rubber layers 47 and 49 and one fabric 48) in order to increase the strength of the reinforcing material. Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the reinforcing band 130 of Wiita et al., as taught by Silvey, in order to improve upon the strength and supporting function of the reinforcing material 130.

In regard to claim 2, wherein said annular rubber band has one end 138 thereof displaced from said open end 120 of resin tube into which the tube connecting portion is press fitted to form an exposed free end of resin tube.

8. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiita et al. in view Silvey and further in view of Coss. Wiita et al. discloses a tube connecting structure as described above. Wiita et al. also discloses using the band 130 to exert a radial force on the hose to provide for more stability and retention between the hose and tube connection portion (see col. 7, lines 60-64). However, Wiita et al. does not disclose using an additional clamping means to further tighten the connection. Coss teaches (see col. 2, lines 9-16 and col. 2, lines 35-41) using both a rubber band 14 and an additional clamping means 16 to join a rubber hose 13 to a connection portion 11 in order to improve upon the stability and retention properties of resin tube connecting structure. Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the rubber band of Wiita et al. to include an additional clamping means, as taught by Coss, in order to improve upon the clamping and sealing properties of the tube connecting structure.

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9. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wiita et al. in view of Coss. Wiita et al. discloses a tube connecting structure as described above. Wiita et al. also discloses using the band 130 to exert a radial force on the hose to provide for more stability and retention between the hose and tube connection portion (see col. 7, lines 60-64). However, Wiita et al. does not disclose using an additional clamping means to further tighten the connection. Coss teaches (see col. 2, lines 9-16 and col. 2, lines 35-41) using both a rubber band 14 and an additional clamping means 16 to join a rubber hose 13 to a connection portion 11 in order to improve upon the stability and retention properties of resin tube connecting structure. Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the rubber band of Wiita et al. to include an additional clamping means, as taught by Coss, in order to improve upon the clamping and sealing properties of the tube connecting structure.

### ***Response to Arguments***

10. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after



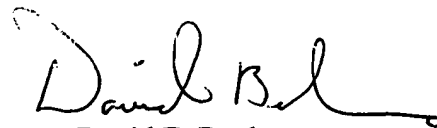
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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David E. Bochna whose telephone number is (571) 272-7078. The examiner can normally be reached on 8-5:30 Monday-Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "David Bochna", with a long horizontal flourish extending to the right.

David E. Bochna  
Primary Examiner  
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